Abstracts

An Efficient Algorithm for the Calculation of Parasitic Coupling Between Lines in MIC's

J.M. Dunn, L.C. Howard and K. Larson. "An Efficient Algorithm for the Calculation of Parasitic Coupling Between Lines in MIC's." 1993 Transactions on Microwave Theory and Techniques 41.7 (Aug. 1993 [T-MTT]): 1287-1293.

A new algorithm is developed to calculate parasitic coupling between transmission lines in an efficient manner. The algorithm works by using the currents and voltages on the lines in the absence of parasitic to calculate independent voltage and current sources which then give the approximate coupling strength between the various lines. These sources are easy to place in a CAB circuit program. The algorithm is demonstrated on a double-stub filter structure. The observed splitting of the resonance, for this particular example, is modeled by using dependent sources, as calculated from the independent sources.

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